first clinically isolated event (CIS), with a high probability of progressing to clinical definite multiple sclerosis (CDMS). We evaluated the long-term cost-effectiveness of treating CIS patients with interferon-β-1b (IFNB-1b) to delay conversion to CDMS and subsequent disease progression. **METHODS:** A Markov model was developed to estimate the cost-effectiveness of IFNB-1b compared to no treatment based on a double blind 2-year trial (BENEFIT). Data from the MS registries in Stockholm (Sweden) and in Lyon (France) were used to populate the model in addition to efficacy data from the clinical trial. Patients converting to CDMS are eligible for any of the licensed disease-modifying drugs (DMD) and disease progression under active treatment is estimated using the treated patients in the Stockholm MS Registry. Patients withdrawing from treatment during or after the trial follow the disease progression of patients not on DMDs in the Lyon MS registry (EDMUS). Disease development is expressed as moving from CIS to mild, moderate and severe disability. Costs and utilities are assigned to patients based on observational data from the Stockholm area. Results are presented as cost per quality-adjusted life-years (QALYs) gained, from the societal perspective, in 2006 €. **RESULTS:** Including all patients, the cost per QALY gained with IFNB-1b is 33,185 € over 20 years. For patients with a mono-focal CIS, prevention with IFNB-1b dominates no treatment, with cost-savings of 13,338 € for a QALY gain of 0.29 (both discounted with 3%). Results are sensitive to the time horizon, the treatment duration and proportion of patients treated at conversion, and the perspective of the analysis. **CONCLUSION:** Within the framework of this analysis in Sweden, around 35% of estimates are cost-saving and more than half of cost-effectiveness ratios remain below a threshold of 50,000 € under most assumptions.

PND20

COST-UTILITY ANALYSIS EVALUATING THE LIDOCAINE 5% MEDICATED PLASTER RELATIVE TO GABAPENTIN AND PREGABALIN FOR POST-HERPETIC NEURALGIA IN GERMANY

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OBJECTIVES: To assess the cost-effectiveness of using a lidocaine 5% medicated plaster in the treatment of post-herpetic neuralgia (PHN) compared with generic gabapentin (1800 mg/day; 1200 mg/day with add-in-medication) and pregabalin (PG; 300 mg/day and 600 mg/day; 300 mg/day with add-in-medication) from the perspective of the German Sickness Funds. **METHODS:** A Markov model was constructed to calculate the cost-effectiveness of gabapentin, PG and lidocaine plaster in terms of the cost per quality-adjusted life-year (QALY) gained when used over a six-month time horizon in patients with PHN. The model structure allowed for differences in costs, utilities and transition probabilities between the initial 30-day run-in period and maintenance therapy. Most transition probabilities were based on clinical trials identified through a systematic literature review. Missing data, including resource utilization, were obtained from a Delphi panel and cost data were from official price tariffs/lists. Utilities derived from the literature were adjusted for age, and were supplemented and validated by the Delphi panel. **RESULTS:** The total cost of treatment with the lidocaine plaster was €937 per patient, compared with €728 for generic gabapentin, €875 for PG300 mg and €975 for PG600 mg. Lidocaine plaster generated 0.300 QALYs, compared with 0.247 for gabapentin, 0.253 for PG300 mg and 0.256 for PG600 mg. Lidocaine plaster therefore costs €3,943 (95% confidence interval [95%CI]: €997, €10,034) per QALY gained relative to gabapentin, €1,319/QALY (95%CI: dominant, €10,032) relative to PG300 mg and dominated PG600 mg (95%CI: dominant, €4,229). Probabilistic sensitivity analysis demonstrated that at a €20,000/QALY threshold, the lidocaine plaster is cost-effective relative to gabapentin with 99.75% confidence, 99.24% relative to PG300 mg and 99.42% relative to PG600 mg. Scenario analyses and extensive one-way sensitivity analyses on all parameters including the time horizon confirmed the robustness of the results. **CONCLUSIONS:** The lidocaine 5% plaster is a highly cost-effective treatment for PHN in Germany.

PND21

INSOMNIA AND SLEEP LOSS: WORKPLACE PRODUCTIVITY LOSS AND ASSOCIATED COSTS

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OBJECTIVES: Using a work-based survey, this study explored the impact of sleep loss and insomnia on worker productivity in diverse work populations. **METHODS:** Employees in four diverse U.S.-based companies participated by completing an anonymous, 55-item, online survey. Respondents were classified according to DSM-IV-TR minimum criteria for 'primary' and 'secondary' insomnia (IN) and ICSD minimum criteria for insufficient sleep syndrome (ISS). The remaining respondents were classified as either 'at-risk' (reported medical, psychological or sleep conditions that precluded IN or ISS) or 'good-sleep' (did not meet criteria for any other group). Associated presenteeism was measured using the Work Limitations Questionnaire. Productivity loss to the employer was estimated using company and/or industry-specific wage data. **RESULTS:** Of 4,188 respondents who completed the survey (40.0 ± 11.2 years, 53.4% male), 9.6% (n = 403), 5.9% (n = 247), 39.6% (n = 1660) and 44.8% (n = 1878) were classified as IN, ISS, at-risk, and good-sleep, respectively. IN and ISS groups reported the greatest impaired abilities ($p < .05$) in time management (28.3% ± 22.5, 25.4% ± 22.2, 20.4% ± 19.6, 11.2% ± 14.5 for IN, ISS, at-risk and good-sleep, respectively), mental-interpersonal demands (23.5% ± 18.1, 22.4% ± 19.0, 18.1% ± 17.1, 9.8% ± 11.7 for IN, ISS, at-risk and good-sleep, respectively) and output demands (20.5% ± 20.0, 17.5% ± 19.2, 14.7% ± 17.8, 8.1% ± 12.6 for IN, ISS, at-risk and good-sleep, respectively). Limitations in performing physical job demands was greatest for the IN group (18.3% ± 21.3, $p < .05$) compared to all other groups (14.7% ± 18.7, 12.8% ± 18.4, 7.1% ± 14.1, for ISS, at-risk, and good-sleep, respectively). Mean at-work productivity loss was 6.1%, 5.5%, 4.6%, 2.5%, for insomnia, ISS, at-risk and good-sleep groups, respectively ($p < .05$). Based on each company's annual salaries, mean at-work productivity loss for the insomnia group was $3,156/employee (range $2,531-$3,980). The aggregate productivity loss to an employer was estimated to be $309,120. **CONCLUSION:** The relatively high prevalence of sleep disruptions within these companies coupled with the impact on job performance and productivity loss provide a rationale for improving detection and treatment among employed individuals.